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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,518	01/16/2004	Michael Reuschel	GS 0648 A US	7046
20676	7590	12/19/2005	EXAMINER TRAN, DALENA	
ALFRED J MANGELS 4729 CORNELL ROAD CINCINNATI, OH 452412433			ART UNIT 3661	
			PAPER NUMBER	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/759,518	Applicant(s) REUSCHEL, MICHAEL	
	Examiner Dalena Tran	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-13 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 9/27/05. As per request, claim 5 has been cancelled. Claim 7 has been amended. Thus, claims 1-4, and 6-13 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, 7-9, and 13, are rejected under 35 U.S.C. 102(e) as being anticipated by Kurasako et al. (6378669).

As per claim 1, Kurasako et al. disclose a method for adjusting a contact force between two frictionally-engaged torque-transmitting components of a motor vehicle drive system, method comprising the steps of: determining a preliminary adjusting value from a value of at least one operating parameter of the drive system (see columns 6-7, lines 37-26), determining a regulator output value by comparing an actual value of an operating parameter with a target value of the operating parameter (see columns 8-9, lines 50-10), and determining the contact force from a control variable that is a function of the preliminary adjusting value (see columns 9-10, lines 11-39).

As per claim 3, Kurasako et al. disclose wherein the preliminary adjusting value and the regulator output value are in direct relationship with the contact force (see columns 1-2, lines 46-46).

As per claim 7, Kurasako et al. disclose a method for adjusting a contact force between two frictionally-engaged torque-transmitting components of a motor vehicle drive system, method comprising the steps of: determining a preliminary adjusting value from a value of at least one operating parameter of the drive system (see columns 6-7, lines 37-26), determining a regulator output value by comparing an actual value of an operating parameter with a target value of the operating parameter (see columns 8-9, lines 50-10), and determining the contact force from a control variable that is a function of the preliminary adjusting value (see columns 9-10, lines 11-39), wherein the preliminary adjusting value increases in magnitude with one of increasing torque, shorter transmission ratio, and smaller running radius of the endless torque transmitting means in the first pair of conical disks (see column 6, lines 1-36).

As per claim 8, Kurasako et al. disclose the actual value of the operating parameter is determined by correlation with the change in a value affecting the value of the operating parameter (see columns 8-9, lines 50-10).

As per claim 9, Kurasako et al. disclose a relationship between a modification of an input value and a dependent modification of the operating parameter used for the regulator output value is used to determine the preliminary adjusting value (see column 7, lines 27-44).

As per claim 13, Kurasako et al. disclose apparatus for the regulation of a contact force between two frictionally engaged torque transmitting components of a motor vehicle drive system, apparatus comprising: sensors for the determination of operating parameters of the drive

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train (see column 4, lines 33-67), at least one actuator for adjustment of the contact force (see columns 3-4, lines 50-32; and column 6, lines 1-36), and an electronic control unit that includes a microprocessor and a program and data storage unit (see columns 6-7, lines 37-26; and column 10, lines 17-39).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, and 12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurasako et al. (6378669) in view of Hanggi et al. (6721643).

As per claim 2, Kurasako et al. do not disclose quasi-static operating conditions of the drive system. However, Hanggi et al. disclose the regulator output value is only operative during quasi-static operating conditions of the drive system (see columns 1-2, lines 44-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Kurasako et al. by combining quasi-static operating conditions of the drive system for adjusting the contact force of the torque transmitting component.

As per claim 12, Kurasako et al. do not disclose at least one additional component, calculated from a model of the drive train, is switched in to the control variable. However, Hanggi et al. disclose at least one additional component, calculated from a model of the drive train, is switched in to the control variable (see columns 5-6, lines 49-23). It would have been

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obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Kurasako et al. by combining at least one additional component, calculated from a model of the drive train, is switched into the control variable to adjust the contact force and ensure the efficiency of the automatic transmission.

6. Claims 6, and 10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurasako et al. (6378669) in view of Lindner et al. (6695115).

As per claim 6, Kurasako et al. do not disclose the preliminary adjusting value is a function of the rotational speed of the pair of conical disks and the transmission ratio of the continuously variable transmission. However, Lindner et al. disclose wherein one of the torque-transmitting components is an endless torque-transmitting means and another component is a pair of conical disks of a continuously variable transmission, and wherein the preliminary adjusting value is a function of the rotational speed of the pair of conical disks and the transmission ratio of the continuously variable transmission (see columns 6-7, lines 58-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Kurasako et al. by combining the preliminary adjusting value is a function of the rotational speed of the pair of conical disks and the transmission ratio of the continuously variable transmission for accurately adjusting the contact force of the torque transmitting component.

Also, as per claim 10, Lindner et al. disclose wherein one of the torque-transmitting components is an endless torque-transmitting means and another component is a conical disk pair of a continuously variable transmission, and a regulation difference is a function slippage between the components (see columns 5-6, lines 25-57).

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7. Claim 11, is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurasako et al. (6378669), and Lindner et al. (6695115) as applied to claim 10 above, and further in view of Hanggi et al. (6721643).

As per claim 11, Kurasako et al., and Lindner et al. do not disclose an additional value is supplied to the adjusting value when the slippage exceeds a threshold value. However, Hanggi et al. disclose an additional value is supplied to the adjusting value when the slippage exceeds a threshold value (see columns 3-4, lines 40-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Kurasako et al., and Lindner et al. by combining an additional value is supplied to the adjusting value when the slippage exceeds a threshold value for adjusting contact force of vehicle drive system.

8. Claim 4, is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Remarks

9. Applicant's argument filed on 9/27/05 has been fully considered. Upon updated search, the new ground of rejection has been set forth as above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Dalena Tran

A handwritten signature in black ink, appearing to read 'Dalena Tran', written in a cursive style.

December 8, 2005